IN THE CLAIMS

Please cancel claims 4-5, 9-10, 14-15, 22, 26, 30 and 39-40.

1. (Currently Amended) An apparatus comprising:

(A) at least one processor;

(B) a memory coupled to the at least one processor;

(C) first and second logical partitions defined on the apparatus, the first logical partition controlling a shared network I/O adapter and the second logical partition using the shared network I/O adapter controlled by the first logical partition;

(D) an I/O adapter sharing mechanism residing in the memory and executed by the at least one processor, the I/O adapter sharing mechanism comprising:

(D1) an I/O adapter device driver in the first logical partition, the I/O adapter device driver including a hardware interface to the shared network I/O adapter;

(D2) a virtual device driver in the second logical partition, wherein the virtual device driver provides a set of functions at least partially determined by querying the I/O adapter device driver in the first logical partition for its available functions; and

(E) a communication mechanism that controls exchange of information between the virtual device driver and the I/O adapter device driver, wherein the communication mechanism comprises a partition manager that communicates between the first and second logical partitions, wherein the communication mechanism further comprises a hosting interface in the first logical partition that communicates between the I/O adapter device driver and the partition manager, wherein the partition manager communicates between the hosting interface in the first logical partition and the virtual device driver in the second logical partition.

2. (Cancelled)

3. (Original) The apparatus of claim 1 further comprising a transfer mechanism that transfers data between the virtual device driver and the shared network I/O adapter without the data passing through the I/O adapter device driver.

4-5. (Cancelled)

6. (Currently Amended) An apparatus comprising:

(A) at least one processor;

(B) a memory coupled to the at least one processor;

(C) first and second logical partitions defined on the apparatus, the first logical partition controlling a shared network I/O adapter and the second logical partition using the shared network I/O adapter controlled by the first logical partition;

(C1) the first logical partition comprising:

an I/O adapter device driver that includes a hardware interface to the shared network I/O adapter;

(C2) the second logical partition comprising:

a virtual device driver that receives data to be sent to the shared network I/O adapter and data received from the shared network I/O adapter, wherein the virtual device driver provides a set of functions at least partially determined by querying the I/O adapter device driver in the first logical partition for its available functions; and

(D) a communication mechanism coupled to the first and second logical partitions that communicates between the virtual device driver and the I/O adapter device driver, wherein the communication mechanism comprises a partition manager that communicates between the first and second logical partitions, wherein the communication mechanism further comprises a hosting interface in the first logical partition that communicates between the I/O adapter device driver and the partition manager, wherein the partition manager communicates between the hosting interface in the first logical partition and the virtual device driver in the second logical partition.

7. (Cancelled)

8. (Original) The apparatus of claim 6 further comprising a transfer mechanism that transfers data between the virtual device driver and the shared network I/O adapter without the data passing through the I/O adapter device driver.

9-10. (Cancelled)

11. (Currently Amended) An apparatus comprising:

at least one processor;

a memory coupled to the at least one processor;

first and second logical partitions defined on the apparatus, the first logical partition controlling a shared network I/O adapter and the second logical partition using the shared network I/O adapter controlled by the first logical partition;

an I/O adapter device driver in the first logical partition, the I/O adapter device driver including a hardware interface to the shared network I/O adapter;

a virtual device driver in the second logical partition, the virtual device driver providing a set of functions at least partially determined from querying the I/O adapter device driver in the first logical partition for its available functions; and

a communication mechanism that communicates between the virtual device driver in the second logical partition and the I/O adapter device driver in the first logical partition, wherein the communication mechanism comprises a partition manager that communicates between the first and second logical partitions, wherein the communication mechanism further comprises a hosting interface in the first logical partition that communicates between the I/O adapter device driver and the partition manager, wherein the partition manager communicates between the hosting interface in the first logical partition and the virtual device driver in the second logical partition.

12. (Cancelled)

13. (Original) The apparatus of claim 11 further comprising a transfer mechanism that transfers data between the virtual device driver and the shared network I/O adapter without the data passing through the I/O adapter device driver.

14-15. (Cancelled)

16. (Previously Presented) An apparatus comprising:

at least one processor;

a memory coupled to the at least one processor;

first and second logical partitions defined on the apparatus, the first logical partition controlling a shared network I/O adapter and the second logical partition using the shared network I/O adapter controlled by the first logical partition; and

a partition manager residing in the memory and executed by the at least one processor, the partition manager performing the steps of:

(1) querying an I/O adapter device driver in the first logical partition for its available functions;

(2) providing a virtual device driver in the second logical partition with a set of functions at least partially determined from the available functions determined in step (1);

(3) receiving at least one transmit message from the virtual device driver in the second logical partition;

(4) sending at least one transmit message to the I/O adapter device driver in the first logical partition that includes a hardware interface to the shared network I/O adapter; and

(5) transferring data from the virtual device driver in the second logical partition to the shared network I/O adapter without the data passing through the I/O adapter device driver in the first logical partition.

17-18. (Cancelled)

19. (Currently Amended) A computer-implemented method for sharing a shared network I/O adapter between first and second logical partitions on a computer apparatus, the method comprising the steps of:

(A) providing an I/O adapter device driver in the first logical partition, the I/O adapter device driver including a hardware interface to the shared network I/O adapter;

(B) determining a plurality of functions provided by the shared network I/O adapter by querying the I/O adapter device driver for its available functions;

(C) providing a virtual device driver in the second logical partition, the virtual device driver providing a set of functions at least partially determined by the plurality of functions determined in step (B); and

(D) a partition manager that communicates between the first and second logical partitions controlling exchange of information between the virtual device driver and the I/O adapter device driver.

20. (Cancelled)

21. (Original) The method of claim 19 further comprising the step of transferring data between the virtual device driver and the shared network I/O adapter without the data passing through the I/O adapter device driver.

22. (Cancelled)

23. (Currently Amended) A computer-implemented method for sharing a shared network I/O adapter between first and second logical partitions on a computer apparatus, the method comprising the steps of:

(A) defining the first and second logical partitions, the first logical partition controlling the shared network I/O adapter and the second logical partition using the shared network I/O adapter controlled by the first logical partition, the first logical partition comprising an I/O adapter device driver that includes a hardware interface to the shared network I/O adapter, the second logical partition comprising a virtual device driver that receives data to be sent to the shared network I/O adapter and data received from the shared network I/O adapter;

(B) determining a plurality of functions provided by the shared network I/O adapter by querying the I/O adapter device driver for its available functions;

(C) providing a set of functions for the virtual device driver that is at least partially determined by the plurality of functions determined in step (B); and

(D) a partition manager that communicates between the first and second logical partitions communicating between the virtual device driver and the I/O adapter device driver.

24. (Cancelled)

25. (Original) The method of claim 23 further comprising the step of transferring data between the virtual device driver and the network I/O adapter without the data passing through the I/O adapter device driver.

26. (Cancelled)

27. (Currently Amended) A computer-implemented method for sharing a shared network I/O adapter between first and second logical partitions on a computer apparatus, the method comprising the steps of:

(A) defining the first and second logical partitions on the apparatus, the first logical partition controlling the shared network I/O adapter and the second logical partition using the shared network I/O adapter controlled by the first logical partition;

(B) providing an I/O adapter device driver in the first logical partition, the I/O adapter device driver including a hardware interface to the shared network I/O adapter;

(C) providing a virtual device driver in the second logical partition, the virtual device driver providing a set of functions at least partially determined from querying the I/O adapter device driver in the first logical partition for its available functions; and

(D) a partition manager that communicates between the first and second logical partitions communicating between the virtual device driver in the second logical partition and the I/O adapter device driver in the first logical partition.

28. (Cancelled)

29. (Original) The method of claim 27 further comprising the step of transferring data between the virtual device driver and the shared network I/O adapter without the data passing through the I/O adapter device driver.

30. (Cancelled)

31. (Previously Presented) A computer-implemented method for sharing a shared network I/O adapter between first and second logical partitions on a computer apparatus, the method comprising the steps of:

(A) defining the first and second logical partitions on the apparatus, the first logical partition controlling a shared network I/O adapter and the second logical partition using the shared network I/O adapter controlled by the first logical partition;

(B) providing a partition manager that performs the steps of:

(B1) querying an I/O adapter device driver in the first logical partition for its available functions;

(B2) providing a virtual device driver in the second logical partition with a set of functions at least partially determined from the available functions determined in step (B1);

(B3) receiving at least one transmit message from the virtual device driver in the second logical partition;

(B4) sending at least one transmit message to the I/O adapter device driver in the first logical partition that includes a hardware interface to the shared network I/O adapter; and

(B5) transferring data from the virtual device driver in the second logical partition to the shared network I/O adapter without the data passing through the I/O adapter device driver in the first logical partition.

32-33. (Cancelled)

34. (Currently Amended) A computer-readable program product comprising:

(A) an I/O adapter sharing mechanism comprising:

(A1) an I/O adapter device driver for installation in a first logical partition, the I/O adapter device driver including a hardware interface to a shared network I/O adapter;

(A2) a virtual device driver for installation in a second logical partition, the virtual device driver providing a set of functions at least partially determined by querying the I/O adapter device driver for its available functions; and

(A3) a communication mechanism that controls exchange of information between the virtual device driver and the I/O adapter device driver, wherein the communication mechanism comprises a partition manager that communicates between the first and second logical partitions, wherein the communication mechanism further comprises a hosting interface in the first logical partition that communicates between the I/O adapter device driver and the partition manager, wherein the partition manager communicates between the hosting interface in the first logical partition and the virtual device driver in the second logical partition;

(B) recordable media bearing the I/O adapter sharing mechanism.

35-37 (Cancelled)

38. (Original) The program product of claim 34 wherein the I/O adapter sharing mechanism further comprises a transfer mechanism that transfers data between the virtual device driver and the shared network I/O adapter without the data passing through the I/O adapter device driver.

39-40. (Cancelled)

41. (Previously Presented) A computer-readable program product comprising:

(A) a partition manager that performs the steps of:

(1) querying an I/O adapter device driver in a first logical partition for its available functions;

(2) providing a virtual device driver in a second logical partition with a set of functions at least partially determined from the available functions determined in step (1);

(3) receiving at least one transmit message from the virtual device driver in the second logical partition;

(4) sending at least one transmit message to the I/O adapter device driver in the first logical partition that includes a hardware interface to a shared network I/O adapter; and

(5) transferring data from the virtual device driver in the second logical partition to the shared network I/O adapter without the data passing through the I/O adapter device driver in the first logical partition; and

(B) recordable media bearing the partition manager.

42-45 (Cancelled)